pairs in two firing areas and the second POC to control the third pair in a single firing area. This method maximizes dispersion up to the limits of the single-channel ground and airborne radio system (SINCGARS) range and provides economy of force.

Command and control of the platoon is flexible, allowing the platoon leader and the platoon sergeant to position themselves at the most critical point on the battlefield. The platoon leader can conduct reconnaissance forward, conduct C^2 in the platoon PA and monitor tactical fire direction and battle tracking in the POC. Likewise, the platoon sergeant can move to wherever on the battlefield he can most effectively perform his duties or, in the absence of his lieutenant, perform the platoon leader's duties.

Depending on METT-T, paired operations can be a very effective method of employing Paladin in both battery and platoon operations. Such operations are a key part of an artillery raid with one POC easily supporting the mission forward. The second POC fights with the remainder of the battery. Pairs also can disperse across a greater front to increase survivability. But communications requirements may limit the distance pairs can occupy from their controlling POCs. Effective use of retransmission can facilitate pair dispersion but may not be resourced.

New Technology. The M109A6 howitzer has many improvements in its survivability, reliability, availability and maintainability. A detailed discussion on these improvements is in Chapter 1, Section 1-4 of FM 6-70.

The system upgrade that has the most impact on training and unit proficiency is the M-93 chronograph. The integrated M-93 is not used in the same manner as the M-90 chronograph. Operators should refer to the TM-10 for instructions.

Calibration is still required with Paladin. However, the howitzer now can determine a muzzle velocity (MV) as long as the system has the extended lot designator for the propellant. To use this system, chiefs of section along with the POCs need to understand how the MV system determines readings and how they are sent to the POC as muzzle velocity variations (MVVs).

Upon receipt of "End-of-Mission," the howitzer sends a digital message to the POC with the average MV as an MVV. The POC is required to verify the MVV and acknowledge on the lightweight

Paladin Defensive Positioning in Open Terrain

With the fielding of the M109A6 (Paladin), many of the traditional cannon battery tactics, techniques and procedures (TTP) have undergone major changes. Traditional methods of constructing defensive diagrams required the plotting of all section positions. Because Paladin operations require frequent survivability moves, plotting the position of individual pieces is no longer practical. This article focuses on a new technique for planning platoon defensive positioning for Paladin operations in open terrain.

To begin constructing the defensive diagram (see the figure), plot the platoon goose egg (normally a center of mass grid with a 500-meter radius). A good way to do this is to use fire direction center (FDC) firing chart paper. Next you plot one azimuth of fire and one left and right limit for the goose egg. The reason for this is each howitzer's main gun and crew-served weapon cover this sector, regardless of its position in the goose egg.

Then you plot the position of the platoon operations center (POC), which should be positioned 300 meters outside the goose egg on the back azimuth of fire. Although this places the POC away from the howitzers, an M992A2 is positioned with it. This provides combat vehicle security for the POC as well as the rear of the goose egg. The auxiliary power unit (APU) on the Field Artillery ammunition support vehicle (FAASV) can be used to provide electrical power for the POC.

The remaining two FAASVs are located at the three and nine o-clock positions just outside the goose egg. Their sectors of fire interlock with the front and rear sectors to provide 6400 mil coverage of the position. This completes the construction of the diagram. The only time you would need to update the diagram is when one or more of the platoons in the battery moves to a new goose egg.

I developed and tested this defensive positioning at the National Training Center, Fort Irwin, California, and validated it in a deployment to Kuwait for Operations Intrinsic Action and Desert Thunder. This technique lends it self to the open dessert terrain and is only one of many for Paladin operations. The technique would have to be modified to suit other terrain and situations.

SFC Sam K. Young, Platoon Sergeant
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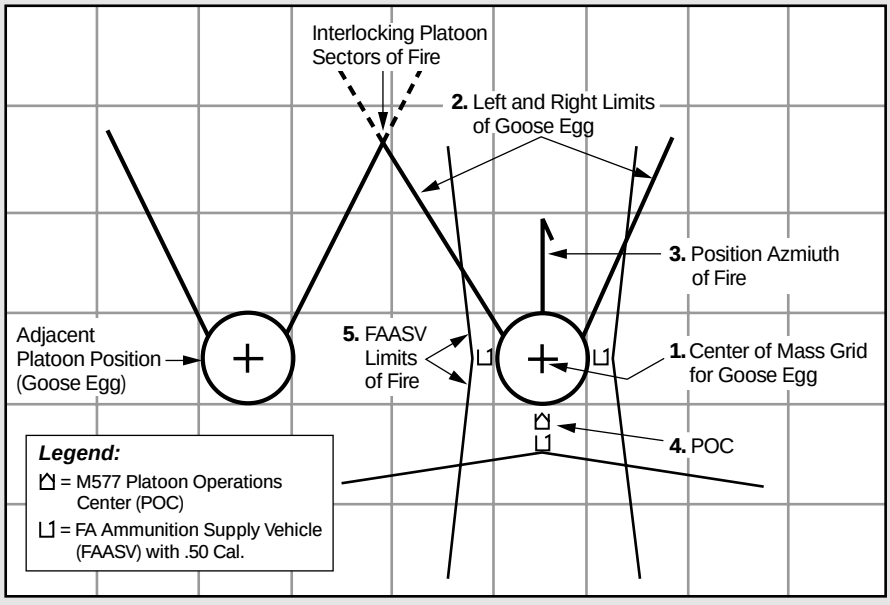

Paladin Defensive Diagram